

NEW SPECIES OF *FERREYRANTHUS* AND *MUNNOZIA* FROM PERU
(LIABEAE: ASTERACEAE)

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ABSTRACT

Ferreyranthus gentryi, *Munnozia chachapoyensis*, *M. luyensis*, and *M. smithii* from Perú are described as new.

KEY WORDS: Asteraceae, Liabeae, *Ferreyranthus*, *Munnozia*, new species, Perú

The following four species are described as new. These include an eighth species of *Ferreyranthus* and three species of *Munnozia* raising the total recognized in that genus from 40 (Robinson 1983) to 43.

Ferreyranthus gentryi H. Robinson, *spec. nov.* TYPE: PERU. Amazonas: 20 km E of Balsas on road to Leimebamba, Marañón Valley, 2000 m, dry roadside, 17 June 1978, A. Gentry, M. Dillon, J. Aronson, & C. Díaz 23126 (HOLOTYPE: US; Isotype: MO). PARATYPE: PERU. Amazonas: Chachapoyas, Marañón River Valley, Celendín - Chachapoyas road, ca. 15 km from Puente Chocanto, 1600-1920 m, dry shrubland with patches of dry forest, 24 May 1984, D.N. Smith & J. Cabanillas 7061 (MO,US).

Plantae suffrutescentes vel frutescentes 0.5-1.8 m altae; caules atro-brunnescentes teretes vel subhexagonales evanescentiter albotomentelli. Folia opposita, petiolis 2-7 mm longis; laminae oblongae 1.5-3.2 cm longae 0.7-1.5 cm latae base et apice obtusae margine vix reflexae minute undulatae supra rugulosae evanescentiter sparse tomentellae subtus dense albo-tomentosae, nervis secundariis ascendititer pinnatis utrinque 4-6 in binis basilaribus ascendentioribus. Inflorescentiae in ramis foliosis terminales dense

corymbosae, ramis et ramulis dense albo-tomentellis, pedunculis 1-2 mm longis. Capitula heterogama anguste campanulata 8-9 mm alta 2-3 mm lata; bracteae involucri flavo-brunnescentes ca. 25 subimbricatae in seriebus 4-5 ovatae vel lanceolatae 1-5 mm longae ca. 1 mm latae apice acutae extus inferne sparse tomentellae in medio longitudinaliter brunneo-vittatae. Flores radii 4 vel 5; corollae flavae ca. 5 mm longae extus multo minute glanduliferis inferne sparsius, tubis angustis ca. 2.5 mm longis, limbis ellipticis ca. 2.5 mm longis 0.8 mm latis apice trilobatis. Flores disci 5; corollae flavae ca. 5.5 mm longae extus multo minute glanduliferae inferne sparsius; tubis ca. 2 mm longis, faucibus ca. 2 mm longis, lobis anguste oblongo-lanceolatae ca. 1.5 mm longis, ca. 0.35 mm latis; thecae antherarum pallidae 1.8 mm longae base dentatae; appendices apicales antherarum oblongo-ovatae ca. 0.4 mm longae 0.17 mm latae; basi stylorum abrupte distincte nodulosi. Achenia cylindrica ca. 1.8 mm longa 8-10-costata dense setulifera et multo minute glandulifera, raphidis elongatis; setae pappi albae ca. 5.5 mm longae distaliter leniter latiores; squamae exteriores lineares 1.0-1.5 mm longae. Grana pollinis in diametro ca. 37 μ m.

The new species is named for the late Al Gentry, the first listed collector of the holotype specimen.

The species is distinct in its small size. The size difference includes the small leaves, up to 3 cm long, and the narrowly campanulate heads with only about 10 florets.

Munnozia chachapoyensis H. Robinson, *spec. nov.* TYPE: PERU. Amazonas: Chachapoyas, 27 kms NE of Florida, off road up a logging trail, 1200 m, 30 December 1979, *James Aronson 1021* (HOLOTYPE: US; Isotype: MO).

Plantae herbaceae 0.3 m altae; caules teretes appresse pallide lanulati, internodis 0.3-2.0 cm longis. Folia opposita sessilia anguste elliptica vel lanceolata 3.0-4.5 cm longa 1.0-1.4 cm lata base breviter subpetioliformia breviter amplexicaulia et anguste perfoliata margine grosse regulariter lobulata apice breviter acuta supra valide alte bullata vix evanescentiter arachnoideo-puberula in nervis primariis persistentiter albo-lanulata subtus dense sordide tomentosa in nervis et nervulis prominentia, nervis secundariis pinnatis utrinque ca. 7. Inflorescentiae scaposae uni- vel tri-capitatae; scapi 9-12 cm longi tenuiter arachnoideo-tomentelli. Capitula heterogama campanulata in involucrio ca. 12 mm alta

et lata; bracteae involucri ca. 40 subimbricatae in seriebus ca. 5 plerumque oblongae vel oblongo-lanceolatae 1.5-9.0 mm longae 1.0-1.8 mm latae apice rotundatae vel obtusae; bracteae paucae interiores lineari-lanceolatae ca. 9 mm longae anguste acutae; receptacula squamulifera vel lobulifera. Flores radii ca. 20; corollae flavae 18-19 mm longae extus persparse pilosulae, pilis attenuatis biseriatis, tubis ca. 4 mm longis, limbis 14-15 mm longis ca. 1 mm latis extus sparse minute glanduliferis. Flores disci ca. 10; corollae flavae ca. 9 mm longae, tubis ca. 4 mm longis, faucibus ca. 2 mm longis, lobis anguste lanceolatae ca. 3 mm longis et 0.5 mm latis extus distaliter minute glanduliferis et minute biseriate puberulis apice minute papillosis; thecae antherarum leniter nigrescentes 2.8 mm longae base integrae; appendices apices antherarum oblongo-ovatae ca. 0.45 mm longae 0.2 mm latae. Achenia ca. 1.7 mm longa 10-costata superne dense setulifera, raphidis subquadratis; setae pappi sordido-flavae 4.5-6.5 mm longae apice tenues; squamae pappi exteriores paucae lineares 0.7-1.0 mm longae. Grana pollinis in diametro ca. 32 μ m.

The new species is named for the Province of Chachapoyas in Depto. Amazonas, Perú where it was collected.

Munnozia chachapoyensis is a small but beautiful member of the genus. The crowded leaves are remarkable in the dark, sharply bullate upper surface, the densely tomentose lower surface, and pinnately lobulate margins. The scapose inflorescences end in single heads or cymes of three heads. The new species seems closest to *M. perfoliata* (S.F. Blake) H. Robinson & Brettell of Colombia (Cauca, Chocó Nariño, Putumayo) and recently collected in Ecuador, Carchi, *Panero & Clark 3098* (TEX,US). The latter species differs by the much broader leaf blades with longer secondary veins that appear darker below. The upper surfaces of the leaves of the latter have comparatively numerous small bullations that are not higher than wide, and the leaves are spreading from the bases without any obvious vagination. The material seen of the new species does not show rhizomes like those of *M. perfoliata*, but such rhizomes may be found in better material.

Munnozia luyensis H. Robinson, *spec. nov.* TYPE: PERU. Amazonas: Luya Province, Ocallí, anexo Ouispe, propeidad de San Esteban Fernández entraudo por "Galera," 1920-2300 m, 19 June 1991, *C. Díaz, José Campos, y Luis Campos 4405* (HOLOTYPE: US; Isotype: MO).

Plantae volubiles flexuosae indefinite elongatae; caules subhexagonales minute appresse puberuli et in parte evanescentiter tenuiter arachnoideo-lanati, internodis 5-7 cm longis. Folia opposita,

petiolis 5.5-7.5 cm longis tenuibus glabris vel subglabris; laminae triangulares 9.5-16.0 cm longae 5.3-8.5 cm latae base hastatae in sinu subacutae in angulis argute acutae margine remote denticulatae apice acutae vel breviter acuminatae supra planae minute puberulae subtus vix pallidiores sparse evanescentiter arachnoideolanulatae minute glandulo-punctatae, nervis secundariis base late patentiter trinervatis aliter patentiter pinnatis. Inflorescentiae late pyramidaliter paniculatae multo capitatae, ramis pyramidaliter paniculatis, ramulis plerumque tricapitatis, pedunculis 3.5-5.5 cm longis minute puberulis et evanescentiter arachnoideolanulatis. Capitula heterogama late campanulata in involucri 5 mm alta et 10 mm lata; bractae involucri ca. 22 plerumque oblongo-ovatae subaequales 3-5 mm longae ca. 2 mm latae apice breviter acutae extus glabrae et 5 aut 7 lineatae; bractae involucri interiores paucae anguste lanceolatae ca. 4 mm longae anguste acutae vel acuminatae; receptacula squamulifera vel lobulifera. Flores radii 25-30?; corollae flavae ca. 16 mm longae, tubis ca. 4 mm longis sparse hirtellis, limbis ca. 12 mm longis 1.2 mm latis sparse pilosulis et persparse glandulo-punctatae, pilis biseriatis. Flores disci ca. 20; corollae flavae 7-8 mm longae, tubis 4.0-4.5 mm longis hirtellis, faucibus abrupte campanulatis ca. 1.5 mm longis base dense pilosulis, lobis ca. 2 mm longis 0.3 mm latis extus mediocriter pilosulis et glandulo-punctatis, pilis biseriatis; thecae antherarum leniter nigrescentes ca. 1.7 mm longae base integrae; appendices apicales antherarum oblongae 0.35 mm longae 0.17 mm latae. Achenia ca. 1.2 mm longa 10-costata dense setulifera, raphidis subquadratis; setae pappi sordide flavae 5.0-5.5 mm longae apice attenuatae; setae exteriores paucae minores 0.25-0.45 mm longae. Grana pollinis in diametro ca. 27 μ m.

The new species is named for the Luya Province in Depto. Amazonas, Perú where it was collected.

Munnozia luyensis seems closely related to the widely distributed *M. senecionidis* Benth., but differs by the subglabrous stems and leaf undersurfaces. The broadly triangular rather than lanceolate leaves also differ in the widely spreading, almost horizontal veins of the basal trinervation in the short part before they branch. The greenish undersurfaces of the leaves somewhat resemble those of *M. subviridis* (S.F. Blake) H. Robins. & Brett., but the latter is a relative of the distinctive *M. hastifolia* (Poepp. & Endl.) H. Robins. & Brett. of southern Perú and adjacent Bolivia with leaves glabrous below and the trinervation of the leaves usually not at the bases of the blades.

Munnozia smithii H. Robinson, *spec. nov.* TYPE: PERU. Pasco: Oxa-

pampa Prov., Cerro Pajonal, 29 km from Oxapampa, "Pajonal", 2650 m. low vegetation (shrubs & grass 2503) with abundant bryophytes, mostly terrestrial, forming a thick organic layer (1+ m) over mineral soil, 6 Oct. 1982, *D.N. Smith & Robin Foster 2517* (HOLOTYPE: US; Isotype: MO).

Plantae herbaceae prostratae indefinite elongatae; caules teretes in sicco plicatae glabri, internodis plerumque 1-2 cm longis. Folia opposita patentiter decussata sessilia oblongo-ovata plerumque 1.5-2.5 cm longa 0.7-1.4 cm lata base obtusa ascendenter trinervata margine subintegra vel paucè remote denticulata apice obtusa vel breviter acuta supra atro-virides plana glabra subtus dense pallide appresse tomentosa in nervis primariis variabiliter subglabra. Inflorescentiae scaposae unicapitulatae; scapi 10-12 cm longis evanescentiter albo-lanulati et minute hirtelli, bracteis minutis binis in nodis 1 vel 2 anguste ellipticis 5-8 mm longis 1.0-2.5 mm latis. Capitula late campanulata vel hemisphaerica sine radiis ca. 1 cm alta et 1.5 cm latis; bractae involucri ca. 32 leniter gradatim 3-4 seriatæ 5-7 mm longae 1.0-1.5 mm latae distaliter brunnescentes vel subrubrescentes extus glabrae obscure 5-lineatae distaliter evanescentiter albo-lanulatae; bractae exteriores oblongae apice obtusae vel breviter acutae; bractae interiores lanceolatae anguste acutae vel breviter acuminatae; receptacula squamifera vel lobulifera. Flores ca. 30; corollae ignotae. Achenia leniter rubrescentes obovata ca. 2 mm longa ca. 1 mm lata 10-costata supra medio setulifera in zonis distinctis apicalibus constricta et glabra, raphidis subquadratis vel subrhombiformibus; setae pappi sordide flavae 4.0-4.5 mm longae apice attenuatae; setae exteriores paucae 0.3-0.5 mm longae.

The new species is named for the late David Smith, first listed collector of the type collection.

Munnozia smithii is unusually distinct in its appearance. It is described on the label as a prostrate herb, and the specimen shows close-set, spreading, decussate, sessile leaves that are dark and glabrous above and densely pale-tomentose below. The heads resemble typical *Munnozia* in their involucre and mature pappus, but their solitary, scapose condition is distinctive. The material has mature achenes, but all corollas have been lost.

LITERATURE CITED

- Robinson, H. 1983. A generic review of the Tribe Liabeae (Asteraceae). *Smithsonian Contr. Bot.* 54:1-69.